UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5 CENTRAL REGIONAL LABORATORY
536 SOUTH CLARK STREET
CHICAGO, ILLINOIS 60605

Print Date: 12/5/02

Subject: Review of Region 5 Data for Himco Dump

From: Xuyen Nguyen, Chemist XN 12/5/02
Contractor to Region 5 Central Regional Laboratory
Submitted to CRL on

To: Superfund, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Attached are Results for: Himco Dump

Analyses included in this report:

SVOA Standard List

Sylvia Griffin 12/05/02

Data Management Coordinator and Date Received

Date Transmitted: 12/05/02

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at 3-7444 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____ / ____ / _____

Received by and Date

Comments:

SVOA

CASE NARRATIVE

DATE: November 25, 2002 TDF#:05-0-047
Job#:249-0-1476-109-011-002

PROJECT NAME: Data set W/O # E2K0101 water samples for Semi-Volatile (CRL SOP GCMS026).
SITE NAME: HIMCO DUMP

ANALYST: Xuyen Nguyen, IITRI/ESAT

I CASE DESCRIPTION:

ESAT received four water samples (E2K0101-02# 2003SY01R02, E2K0101-04# 2003 SY01S04, E2K0101-05# 2003SY01D04 and E2K0101-06# 2003SY01S05) for semi-volatile analysis on November 01, 2002. The samples were extracted on November 4, 2002 using the continuous liquid/liquid extraction method per CRL SOP GCMS026. All samples extracts were analyzed on November 13, 2002 . Their IS responses were below the lower QC limits. All The samples were re- analyzed on November 20, 2002 within the required hold time after discussing with the TOPO.

II. INSTRUMENT QUALITY CONTROLS:

1. Instrument Performance Checks:

A GC/MS instrument performance check using DFTPP was made each day of analysis to determine if acceptable EPA tuning criteria were met. The QC criteria are the same as those found in CRL SOP GCMS026. All standards and samples were analyzed on GCMS #2. All QC criteria were met and no problems were observed.

2. Initial Calibrations (IC):

An acceptable five point IC is required for all target compounds before samples can be analyzed. The QC criterion for the IC states each analyte's %RSD must be < 30% for water (according to the criteria listed in CRL SOP GCMS026).All analytes met the requirements for the IC analyzed on November 20, 2002 except Benzoic acid (74.50%RSD), Hexachlorocyclopentadiene (53.7%RSD), 2,4-Dinitrophenol (58.6%RSD), 4,6-Dinitro-2-methylphenol(64.3%RSD) and Pentachlorophenol (94.8%RSD). These analytes were flagged estimated "J" for positive results and "UJ" for non-detects. The analyte 2,4-Dinitrophenol has three point calibration curve , 4-Nitrophenol has four point calibration curve and Pentachlorophenol has three point calibration curve. These compounds have an elevated detection limit.

3. Continuing calibration (CC):

An acceptable CC is required for all target compounds before samples can be analyzed. The QC criteria for the CC states each analyte's %D must be <25%. The continuing calibration, analyzed on November 20, 2002 reported all compounds within the quality control limits except 2,4-Dinitrophenol(52.4%D) and Pentachlorophenol (85.7%D). These analytes were flagged "J" for positive results and "UJ" for non-detects in the associated samples.

4. Internal Standard (IS) Area and Retention Time Summary:

The QC criteria states that the IS area of the samples must range from 50 to 200% of the internal standard area of the corresponding CC. The RT of the IS for samples must also be within ±30 seconds of the RT of the IS for the corresponding standard.
All internal standards area met the QC requirements .

III. METHOD QUALITY CONTROL:

1. Method Blank Results:

A lab blank was prepared for each day samples were extracted to check the GC/MS, extraction glassware and the reagents for laboratory contamination.
The extraction blank EK21101-blk1 reported bis(2-Ethylhexyl)phthalate at 6ug/L . This analyte was qualified as non-detected "UJ" when the sample result is less than(<) ten (10) times the blank results and detected "J" when the sample results at or above the reporting limit(RL) in all the associated samples.

2. Surrogate Spike Compound Results:

All surrogate recoveries were within the control limits stated in the CRL SOP GCMS026 except in the sample E2I0501-MSD1, only one surrogate Nitrobenzene-d5(34%) was outside the control QC limits, no action was required.

3. Laboratory Control Sample (LCS) Results:

The EK21101-BS1 and EK21101-BSD1 were each spiked with 500ul of the 100ug/ml ABN LCS standard solution. This corresponded to a 50ug spiked into one liter of water.
In the EK21101-BS1 and EK21101-BSD1 samples, all the relative percent differences (RPD) were within QC limits except Dimethylphthalate(103%) and Diethylphthalate(52%).
In the EK21101-BS1/BSD1 samples , all the percent recoveries were within limits except analytes Diethylphthalate(20%) and Pentachlorophenol(5%) which were outside limits in the BS1 sample but were within limits in the BSD1 sample so no action was required..
The analyte 2,4-Dinitrophenol was not detected in either the BS1 or BSD1. This analyte was flagged "Q" for detected compound and "R" for non-detected compound in all the samples.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results

Sample E2K0101-06 was used as the MS1/MSD1 samples. The MS1 and MSD1 samples were each spiked with 500ul of the 100ug/ml ABN LCS standard solution.
In the MS1 sample all the percent recoveries were within limits except Pentachlorophenol (188%) and 3,3-Dichlorobenzidine(26%).
The analyte 2,4-Dinitrophenol was not detected in either MS1 or MSD1. This analyte was flagged "Q" for detected and "R" for non-detected compounds in the native sample.

In the MSD1 sample all the percent recoveries were within limits except: bis(2-Chloroethyl)ether (10%), 1,3-Dichlorobenzene(11%), 1,4-Dichlorobenzene(12%), 1,2-Dichlorobenzene(16%), bis(2-chloroisopropyl)ether(24%), 2-Nitrophenol(38%) N-Nitroso-di-n-propylamine(32%), Nitrobenzene(32%), Isophorone(42%), bis(2-Chloroethoxy)methane(44%), 1,2,4-Trichlorobenzene(32%) 4-Chloroaniline (26%), Pentachlorophenol(162%) and 3,3-Dichlorobenzidine (18%). All these compounds percent recoveries were within limits in the MS1 except the analytes Pentachlorophenol and 3,3-Dichlorobenzidine were outside limits in both MS1 and MSD1. These compounds were flagged "J" for detected and "UJ" for non-detected compounds in the native sample.

The relative percent differences(RPD) were within limits except bis(2-Chloroethyl)ether (117%), 1,3-Dichlorobenzene(123%), 1,4-Dichlorobenzene(120%), 1,2-Dichlorobenzene (103%), bis(2-chloroisopropyl)ether(83%), Hexachloroethane(97%), N-Nitroso-di-n-propylamine(64%), Nitrobenzene(58%), Isophorone(42%), 2,4-Nitrophenol (51%),4-Chloroaniline (76%) and bis(2-Ethylhexyl)phthalate(29%). No other problems were observed.

IV.SAMPLES RESULTS:

In the sample E2k0101-02 contained bis(2-Ethylhexyl)phthalate(5.0ug/L)
In the sample E2k0101-04 contained bis(2-Ethylhexyl)phthalate(7.0ug/L
In the sample E2k0101-05 contained bis(2-Ethylhexyl)phthalate(4.0ug/L)
In the sample E2k0101-06 contained bis(2-Ethylhexyl)phthalate(6.0ug/L)
The raw /processed data files, method files and sequence files are archived on R5CRL\VOL2\XNGUYEN\2002.
Tentatively Identified Compounds (TICs) have been listed for each sample. These compounds listed on the Enviroforms were selected based on the best Mass spectrum match of the unknown compound to compounds in the library. These compounds are suggested and not confirmed. LIMS reports will be generated as soon as possible.

Environmental Protection Agency Region 5
Central Regional Laboratory

536 South Clark Street, Chicago, IL 60605
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WORK ORDER **Printed: 11/25/02 12:26:56P**

E2K0101

IITRI - ESAT Contract

Client: Superfund, US EPA Region 5 **Project Manager:** Jennifer Mokos
Project: Himco Dump **Project Number:** 2003SY01

Report To:
Howard Pham, Superfund, US EPA Region 5 | 77 West Jackson Boulevard, Chicago, IL 60604 | Phone: (312) 353-2310, Fax: (312) 886-6171

Date Due: Dec-03-02 15:00 (30 day TAT)
Received By: William Sargent Date Received: Nov-01-02 11:27
Logged In By: William Sargent Date Logged In: Nov-01-02 12:16

Samples Received at:	°C
All containers intact:	No
Sample labels/COC agree:	No
Samples Preserved Properly:	No
Custody Seals Present:	No

Analysis	Due	TAT	Expires	Comments
E2K0101-01 2003SY01S01-SINK [Water] Sampled Oct-31-02 07:40 Central				
Volatiles Full List	Dec-03-02 12:00	30	Nov-07-02 07:40	
THF & 1,4-Dioxane	Dec-03-02 12:00	30	Nov-14-02 07:40	
E2K0101-02 2003SY01R02-Pump Blank [Water] Sampled Oct-31-02 11:50 Central				
GFAA 5100 Cd	Dec-03-02 12:00	30	Apr-29-03 11:50	
Volatiles Full List	Dec-03-02 12:00	30	Nov-07-02 11:50	
SVOA Standard List	Dec-03-02 12:00	30	Nov-07-02 11:50	
Cyanide, Total	Dec-03-02 12:00	30	Nov-14-02 11:50	pH10
Hg Total CVAA	Dec-03-02 12:00	30	Nov-28-02 11:50	pH2
Solids, Dry Weight	Dec-03-02 12:00	30	Nov-07-02 11:50	For SVOA Standard List in batch EK21101
B ICP (W)	Dec-03-02 12:00	30	Apr-29-03 11:50	pH2
THF & 1,4-Dioxane	Dec-03-02 12:00	30	Nov-14-02 11:50	
Metals SF ICP (W)	Dec-03-02 12:00	30	Apr-29-03 11:50	pH2
GFAA SIMAA Metals	Dec-03-02 12:00	30	Apr-29-03 11:50	pH2
E2K0101-03 2003SY01R03-Trip Blank [Water] Sampled Oct-31-02 11:50 Central				
Volatiles Full List	Dec-03-02 12:00	30	Nov-07-02 11:50	
THF & 1,4-Dioxane	Dec-03-02 12:00	30	Nov-14-02 11:50	

E2K0101

IITRI - ESAT Contract

Client: Superfund, US EPA Region 5 **Project Manager:** Jennifer Mokos
Project: Himco Dump **Project Number:** 2003SY01

Analysis	Due	TAT	Expires	Comments
E2K0101-04 2003SY01S04-WT116A [Water] Sampled Oct-31-02 13:52 Central				
GFAA 5100 Cd	Dec-03-02 12:00	30	Apr-29-03 13:52	
Volatiles Full List	Dec-03-02 12:00	30	Nov-07-02 13:52	
SVOA Standard List	Dec-03-02 12:00	30	Nov-07-02 13:52	
Cyanide, Total	Dec-03-02 12:00	30	Nov-14-02 13:52	pH10
Hg Total CVAA	Dec-03-02 12:00	30	Nov-28-02 13:52	pH2
Solids, Dry Weight	Dec-03-02 12:00	30	Nov-07-02 13:52	For SVOA Standard List in batch EK21101
B ICP (W)	Dec-03-02 12:00	30	Apr-29-03 13:52	pH2
THF & 1,4-Dioxane	Dec-03-02 12:00	30	Nov-14-02 13:52	
Metals SF ICP (W)	Dec-03-02 12:00	30	Apr-29-03 13:52	pH2
GFAA SIMAA Metals	Dec-03-02 12:00	30	Apr-29-03 13:52	pH2
E2K0101-05 2003SY01D04-WT116A [Water] Sampled Oct-31-02 13:52 Central				
GFAA 5100 Cd	Dec-03-02 12:00	30	Apr-29-03 13:52	
Volatiles Full List	Dec-03-02 12:00	30	Nov-07-02 13:52	
SVOA Standard List	Dec-03-02 12:00	30	Nov-07-02 13:52	
Cyanide, Total	Dec-03-02 12:00	30	Nov-14-02 13:52	pH10
Hg Total CVAA	Dec-03-02 12:00	30	Nov-28-02 13:52	pH2
Solids, Dry Weight	Dec-03-02 12:00	30	Nov-07-02 13:52	For SVOA Standard List in batch EK21101
B ICP (W)	Dec-03-02 12:00	30	Apr-29-03 13:52	pH2
THF & 1,4-Dioxane	Dec-03-02 12:00	30	Nov-14-02 13:52	
Metals SF ICP (W)	Dec-03-02 12:00	30	Apr-29-03 13:52	pH2
GFAA SIMAA Metals	Dec-03-02 12:00	30	Apr-29-03 13:52	pH2
E2K0101-06 2003SY01S05-WT115A [Water] Sampled Oct-31-02 15:00 Central MS/MSD				
GFAA 5100 Cd	Dec-03-02 12:00	30	Apr-29-03 15:00	
Volatiles Full List	Dec-03-02 12:00	30	Nov-07-02 15:00	
SVOA Standard List	Dec-03-02 12:00	30	Nov-07-02 15:00	
Cyanide, Total	Dec-03-02 12:00	30	Nov-14-02 15:00	pH10
Hg Total CVAA	Dec-03-02 12:00	30	Nov-28-02 15:00	pH2
Solids, Dry Weight	Dec-03-02 12:00	30	Nov-07-02 15:00	For SVOA Standard List in batch EK21101
B ICP (W)	Dec-03-02 12:00	30	Apr-29-03 15:00	pH2
THF & 1,4-Dioxane	Dec-03-02 12:00	30	Nov-14-02 15:00	
Metals SF ICP (W)	Dec-03-02 12:00	30	Apr-29-03 15:00	pH2
GFAA SIMAA Metals	Dec-03-02 12:00	30	Apr-29-03 15:00	pH2

Reviewed By Date

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IIT Research Institute ESAT Region 5
536 South Clark Street, Suite 734; Chicago, IL 60605
Telephone (312) 353-8302 Facsimile (312) 353-8307

Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
2003SY01R02-Pump Blank	E2K0101-02	Water	Oct-31-02 11:50	Nov-01-02 11:27
2003SY01S04-WT116A	E2K0101-04	Water	Oct-31-02 13:52	Nov-01-02 11:27
2003SY01D04-WT116A	E2K0101-05	Water	Oct-31-02 13:52	Nov-01-02 11:27
2003SY01S05-WT115A	E2K0101-06	Water	Oct-31-02 15:00	Nov-01-02 11:27

Xuyen Nguyen, Chemist

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project:Himco Dump Project Number:2003SY01 Project Manager:Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01R02-Pump Blank

E2K0101-02(Water)
Sampled: Oct-31-02 11:50
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Phenol	U		0.74	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Bis(2-chloroethyl)ether	U		0.68	5.0	"	"	"	"	"
2-Chlorophenol	U		0.79	5.0	"	"	"	"	"
1,3-Dichlorobenzene	U		2.1	5.0	"	"	"	"	"
1,4-Dichlorobenzene	U		2.2	5.0	"	"	"	"	"
Benzyl alcohol	U		1.0	5.0	"	"	"	"	"
1,2-Dichlorobenzene	U		1.9	5.0	"	"	"	"	"
2-Methylphenol	U		0.64	5.0	"	"	"	"	"
Bis(2-chloroisopropyl)ether	U		1.8	5.0	"	"	"	"	"
4-Methylphenol	U		0.80	5.0	"	"	"	"	"
N-Nitrosodi-n-propylamine	U		1.7	5.0	"	"	"	"	"
Hexachloroethane	U		2.7	5.0	"	"	"	"	"
Nitrobenzene	U		1.4	5.0	"	"	"	"	"
Isophorone	U		1.4	5.0	"	"	"	"	"
2-Nitrophenol	U		1.5	5.0	"	"	"	"	"
2,4-Dimethylphenol	U		1.4	5.0	"	"	"	"	"
Benzoic acid	U	J	1.8	25	"	"	"	"	"
Bis(2-chloroethoxy)methane	U		1.0	5.0	"	"	"	"	"
2,4-Dichlorophenol	U		1.2	5.0	"	"	"	"	"
1,2,4-Trichlorobenzene	U		1.8	5.0	"	"	"	"	"
Naphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloroaniline	U		1.6	5.0	"	"	"	"	"
Hexachlorobutadiene	U		2.5	5.0	"	"	"	"	"
2-Methylnaphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloro-3-methylphenol	U		1.1	5.0	"	"	"	"	"
Hexachlorocyclopentadiene	U	J	2.8	25	"	"	"	"	"
2,4,6-Trichlorophenol	U		1.1	5.0	"	"	"	"	"
2,4,5-Trichlorophenol	U		1.6	5.0	"	"	"	"	"
2-Chloronaphthalene	U		1.4	5.0	"	"	"	"	"
2-Nitroaniline	U		2.3	5.0	"	"	"	"	"
Acenaphthylene	U		0.68	5.0	"	"	"	"	"
Dimethyl phthalate	U		1.2	5.0	"	"	"	"	"

Xuyen Nguyen, Chemist

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project:Himco Dump Project Number:2003SY01 Project Manager:Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01R02-Pump Blank
E2K0101-02(Water)
Sampled: Oct-31-02 11:50
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2,6-Dinitrotoluene	U		1.6	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Acenaphthene	U		0.60	5.0	"	"	"	"	"
3-Nitroaniline	U		2.0	25	"	"	"	"	"
Dibenzofuran	U		1.6	5.0	"	"	"	"	"
2,4-Dinitrophenol	U	R	1.8	25	"	"	"	"	"
2,4-Dinitrotoluene	U		2.0	5.0	"	"	"	"	"
Fluorene	U		1.1	5.0	"	"	"	"	"
4-Nitrophenol	U		1.6	25	"	"	"	"	"
4-Chlorophenyl phenyl ether	U		1.4	5.0	"	"	"	"	"
Diethyl phthalate	U	J	1.7	5.0	"	"	"	"	"
4,6-Dinitro-2-methylphenol	U	J	1.5	25	"	"	"	"	"
N-Nitrosodiphenylamine	U		1.4	5.0	"	"	"	"	"
4-Nitroaniline	U		1.7	25	"	"	"	"	"
4-Bromophenyl phenyl ether	U		0.88	5.0	"	"	"	"	"
Hexachlorobenzene	U		1.4	5.0	"	"	"	"	"
Pentachlorophenol	U	J	1.6	25	"	"	"	"	"
Phenanthrene	U		0.56	5.0	"	"	"	"	"
Anthracene	U		0.80	5.0	"	"	"	"	"
Carbazole	U		1.6	5.0	"	"	"	"	"
Di-n-butyl phthalate	U		1.9	5.0	"	"	"	"	"
Fluoranthene	U		3.6	5.0	"	"	"	"	"
Pyrene	U		3.0	5.0	"	"	"	"	"
Butyl benzyl phthalate	U		2.2	5.0	"	"	"	"	"
3,3'-Dichlorobenzidine	U		1.1	25	"	"	"	"	"
Chrysene	U		0.65	5.0	"	"	"	"	"
Benzo (a) anthracene	U		0.92	5.0	"	"	"	"	"
Bis(2-ethylhexyl)phthalate	4.9	UJ	2.3	5.0	"	"	"	"	"
Di-n-octyl phthalate	U		2.7	5.0	"	"	"	"	"
Benzo (b) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (k) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (a) pyrene	U		0.73	5.0	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	U		0.30	5.0	"	"	"	"	"

Xuyen Nguyen, Chemist

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Superfund, US EPA Region 5	Project:Himco Dump	
77 West Jackson Boulevard	Project Number:2003SY01	**Reported:**
Chicago IL, 60604	Project Manager:Howard Pham	Dec-05-02 14:50

2003SY01R02-Pump Blank

E2K0101-02(Water)
Sampled: Oct-31-02 11:50
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Dibenz (a,h) anthracene	U		0.63	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Benzo (g,h,i) perylene	U		0.93	5.0	"	"	"	"	"
Surrogate: 2-Fluorophenol	17.9			*35.8 %*	*18-128*		"	"	"
Surrogate: Phenol-d6	26.8			*53.6 %*	*12-133*		"	"	"
Surrogate: Nitrobenzene-d5	23.2			*46.4 %*	*5-158*		"	"	"
Surrogate: 2-Fluorobiphenyl	25.7			*51.4 %*	*29-128*		"	"	"
Surrogate: 2,4,6-Tribromophenol	39.0			*78.0 %*	*32-148*		"	"	"
Surrogate: Terphenyl-dl4	42.3			*84.6 %*	*62-140*		"	"	"

Xuyen Nguyen, Chemist

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Himco Dump Project Number: 2003SY01 Project Manager: Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01S04-WT116A
E2K0101-04(Water)
Sampled: Oct-31-02 13:52
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Phenol	U		0.74	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Bis(2-chloroethyl)ether	U		0.68	5.0	"	"	"	"	"
2-Chlorophenol	U		0.79	5.0	"	"	"	"	"
1,3-Dichlorobenzene	U		2.1	5.0	"	"	"	"	"
1,4-Dichlorobenzene	U		2.2	5.0	"	"	"	"	"
Benzyl alcohol	U		1.0	5.0	"	"	"	"	"
1,2-Dichlorobenzene	U		1.9	5.0	"	"	"	"	"
2-Methylphenol	U		0.64	5.0	"	"	"	"	"
Bis(2-chloroisopropyl)ether	U		1.8	5.0	"	"	"	"	"
4-Methylphenol	U		0.80	5.0	"	"	"	"	"
N-Nitrosodi-n-propylamine	U		1.7	5.0	"	"	"	"	"
Hexachloroethane	U		2.7	5.0	"	"	"	"	"
Nitrobenzene	U		1.4	5.0	"	"	"	"	"
Isophorone	U		1.4	5.0	"	"	"	"	"
2-Nitrophenol	U		1.5	5.0	"	"	"	"	"
2,4-Dimethylphenol	U		1.4	5.0	"	"	"	"	"
Benzoic acid	U	J	1.8	25	"	"	"	"	"
Bis(2-chloroethoxy)methane	U		1.0	5.0	"	"	"	"	"
2,4-Dichlorophenol	U		1.2	5.0	"	"	"	"	"
1,2,4-Trichlorobenzene	U		1.8	5.0	"	"	"	"	"
Naphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloroaniline	U		1.6	5.0	"	"	"	"	"
Hexachlorobutadiene	U		2.5	5.0	"	"	"	"	"
2-Methylnaphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloro-3-methylphenol	U		1.1	5.0	"	"	"	"	"
Hexachlorocyclopentadiene	U	J	2.8	25	"	"	"	"	"
2,4,6-Trichlorophenol	U		1.1	5.0	"	"	"	"	"
2,4,5-Trichlorophenol	U		1.6	5.0	"	"	"	"	"
2-Chloronaphthalene	U		1.4	5.0	"	"	"	"	"
2-Nitroaniline	U		2.3	5.0	"	"	"	"	"
Acenaphthylene	U		0.68	5.0	"	"	"	"	"
Dimethyl phthalate	U		1.2	5.0	"	"	"	"	"

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project:Himco Dump Project Number:2003SY01 Project Manager:Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01S04-WT116A
E2K0101-04(Water)
Sampled: Oct-31-02 13:52
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2,6-Dinitrotoluene	U		1.6	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Acenaphthene	U		0.60	5.0	"	"	"	"	"
3-Nitroaniline	U		2.0	25	"	"	"	"	"
benzofuran	U		1.6	5.0	"	"	"	"	"
-Dinitrophenol	U	R	1.8	25	"	"	"	"	"
2,4-Dinitrotoluene	U		2.0	5.0	"	"	"	"	"
Fluorene	U		1.1	5.0	"	"	"	"	"
4-Nitrophenol	U		1.6	25	"	"	"	"	"
4-Chlorophenyl phenyl ether	U		1.4	5.0	"	"	"	"	"
Diethyl phthalate	U	J	1.7	5.0	"	"	"	"	"
4,6-Dinitro-2-methylphenol	U	J	1.5	25	"	"	"	"	"
N-Nitrosodiphenylamine	U		1.4	5.0	"	"	"	"	"
4-Nitroaniline	U		1.7	25	"	"	"	"	"
4-Bromophenyl phenyl ether	U		0.88	5.0	"	"	"	"	"
Hexachlorobenzene	U		1.4	5.0	"	"	"	"	"
Pentachlorophenol	U	J	1.6	25	"	"	"	"	"
Phenanthrene	U		0.56	5.0	"	"	"	"	"
Anthracene	U		0.80	5.0	"	"	"	"	"
Carbazole	U		1.6	5.0	"	"	"	"	"
-n-butyl phthalate	U		1.9	5.0	"	"	"	"	"
Fluoranthene	U		3.6	5.0	"	"	"	"	"
Pyrene	U		3.0	5.0	"	"	"	"	"
Butyl benzyl phthalate	U		2.2	5.0	"	"	"	"	"
3,3'-Dichlorobenzidine	U		1.1	25	"	"	"	"	"
Chrysene	U		0.65	5.0	"	"	"	"	"
Benzo (a) anthracene	U		0.92	5.0	"	"	"	"	"
Bis(2-ethylhexyl)phthalate	6.9	UJ	2.3	5.0	"	"	"	"	"
Di-n-octyl phthalate	U		2.7	5.0	"	"	"	"	"
Benzo (b) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (k) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (a) pyrene	U		0.73	5.0	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	U		0.30	5.0	"	"	"	"	"

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

2003SY01S04-WT116A
E2K0101-04(Water)
Sampled: Oct-31-02 13:52
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Dibenz (a,h) anthracene	U		0.63	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Benzo (g,h,i) perylene	U		0.93	5.0	"	"	"	"	"
Surrogate: 2-Fluorophenol	32.0			*64.0 %*		*18-128*	"	"	"
Surrogate: Phenol-d6	37.0			*74.0 %*		*12-133*	"	"	"
Surrogate: Nitrobenzene-d5	36.6			*73.2 %*		*5-158*	"	"	"
Surrogate: 2-Fluorobiphenyl	32.8			*65.6 %*		*29-128*	"	"	"
Surrogate: 2,4,6-Tribromophenol	52.4			*105 %*		*32-148*	"	"	"
Surrogate: Terphenyl-dl4	39.0			*78.0 %*		*62-140*	"	"	"

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Himco Dump Project Number: 2003SY01 Project Manager: Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01D04-WT116A
E2K0101-05(Water)
Sampled: Oct-31-02 13:52
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Phenol	U		0.74	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Bis(2-chloroethyl)ether	U		0.68	5.0	"	"	"	"	"
2-Chlorophenol	U		0.79	5.0	"	"	"	"	"
1,3-Dichlorobenzene	U		2.1	5.0	"	"	"	"	"
1,4-Dichlorobenzene	U		2.2	5.0	"	"	"	"	"
Benzyl alcohol	U		1.0	5.0	"	"	"	"	"
1,2-Dichlorobenzene	U		1.9	5.0	"	"	"	"	"
2-Methylphenol	U		0.64	5.0	"	"	"	"	"
Bis(2-chloroisopropyl)ether	U		1.8	5.0	"	"	"	"	"
4-Methylphenol	U		0.80	5.0	"	"	"	"	"
N-Nitrosodi-n-propylamine	U		1.7	5.0	"	"	"	"	"
Hexachloroethane	U		2.7	5.0	"	"	"	"	"
Nitrobenzene	U		1.4	5.0	"	"	"	"	"
Isophorone	U		1.4	5.0	"	"	"	"	"
2-Nitrophenol	U		1.5	5.0	"	"	"	"	"
2,4-Dimethylphenol	U		1.4	5.0	"	"	"	"	"
Benzoic acid	U	J	1.8	25	"	"	"	"	"
Bis(2-chloroethoxy)methane	U		1.0	5.0	"	"	"	"	"
2,4-Dichlorophenol	U		1.2	5.0	"	"	"	"	"
1,2,4-Trichlorobenzene	U		1.8	5.0	"	"	"	"	"
Naphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloroaniline	U		1.6	5.0	"	"	"	"	"
Hexachlorobutadiene	U		2.5	5.0	"	"	"	"	"
2-Methylnaphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloro-3-methylphenol	U		1.1	5.0	"	"	"	"	"
Hexachlorocyclopentadiene	U	J	2.8	25	"	"	"	"	"
2,4,6-Trichlorophenol	U		1.1	5.0	"	"	"	"	"
2,4,5-Trichlorophenol	U		1.6	5.0	"	"	"	"	"
2-Chloronaphthalene	U		1.4	5.0	"	"	"	"	"
2-Nitroaniline	U		2.3	5.0	"	"	"	"	"
Acenaphthylene	U		0.68	5.0	"	"	"	"	"
Dimethyl phthalate	U		1.2	5.0	"	"	"	"	"

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Himco Dump Project Number: 2003SY01 Project Manager: Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01D04-WT116A
E2K0101-05(Water)
Sampled: Oct-31-02 13:52
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2,6-Dinitrotoluene	U		1.6	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Acenaphthene	U		0.60	5.0	"	"	"	"	"
3-Nitroaniline	U		2.0	25	"	"	"	"	"
Dibenzofuran	U		1.6	5.0	"	"	"	"	"
2,4-Dinitrophenol	U	R	1.8	25	"	"	"	"	"
2,4-Dinitrotoluene	U		2.0	5.0	"	"	"	"	"
Fluorene	U		1.1	5.0	"	"	"	"	"
4-Nitrophenol	U		1.6	25	"	"	"	"	"
4-Chlorophenyl phenyl ether	U		1.4	5.0	"	"	"	"	"
Diethyl phthalate	U	J	1.7	5.0	"	"	"	"	"
4,6-Dinitro-2-methylphenol	U	J	1.5	25	"	"	"	"	"
N-Nitrosodiphenylamine	U		1.4	5.0	"	"	"	"	"
4-Nitroaniline	U		1.7	25	"	"	"	"	"
4-Bromophenyl phenyl ether	U		0.88	5.0	"	"	"	"	"
Hexachlorobenzene	U		1.4	5.0	"	"	"	"	"
Pentachlorophenol	U	J	1.6	25	"	"	"	"	"
Phenanthrene	U		0.56	5.0	"	"	"	"	"
Anthracene	U		0.80	5.0	"	"	"	"	"
Carbazole	U		1.6	5.0	"	"	"	"	"
Di-n-butyl phthalate	U		1.9	5.0	"	"	"	"	"
Fluoranthene	U		3.6	5.0	"	"	"	"	"
Pyrene	U		3.0	5.0	"	"	"	"	"
Butyl benzyl phthalate	U		2.2	5.0	"	"	"	"	"
3,3'-Dichlorobenzidine	U		1.1	25	"	"	"	"	"
Chrysene	U		0.65	5.0	"	"	"	"	"
Benzo (a) anthracene	U		0.92	5.0	"	"	"	"	"
Bis(2-ethylhexyl)phthalate	4.6	UJ	2.3	5.0	"	"	"	"	"
Di-n-octyl phthalate	U		2.7	5.0	"	"	"	"	"
Benzo (b) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (k) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (a) pyrene	U		0.73	5.0	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	U		0.30	5.0	"	"	"	"	"

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

2003SY01D04-WT116A
E2K0101-05(Water)
Sampled: Oct-31-02 13:52
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Dibenz (a,h) anthracene	U		0.63	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Benzo (g,h,i) perylene	U		0.93	5.0	"	"	"	"	"
Surrogate: 2-Fluorophenol	36.5			*73.0 %*		*18-128*	"	"	"
Surrogate: Phenol-d6	40.8			*81.6 %*		*12-133*	"	"	"
Surrogate: Nitrobenzene-d5	39.8			*79.6 %*		*5-158*	"	"	"
Surrogate: 2-Fluorobiphenyl	35.4			*70.8 %*		*29-128*	"	"	"
Surrogate: 2,4,6-Tribromophenol	53.0			*106 %*		*32-148*	"	"	"
Surrogate: Terphenyl-dl4	42.4			*84.8 %*		*62-140*	"	"	"

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Himco Dump Project Number: 2003SY01 Project Manager: Howard Pham	**Reported:** Dec-05-02 14:50

2003SY01S05-WT115A
E2K0101-06(Water)
Sampled: Oct-31-02 15:00
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Phenol	U		0.74	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Bis(2-chloroethyl)ether	U		0.68	5.0	"	"	"	"	"
2-Chlorophenol	U		0.79	5.0	"	"	"	"	"
1,3-Dichlorobenzene	U		2.1	5.0	"	"	"	"	"
1,4-Dichlorobenzene	U		2.2	5.0	"	"	"	"	"
Benzyl alcohol	U		1.0	5.0	"	"	"	"	"
1,2-Dichlorobenzene	U		1.9	5.0	"	"	"	"	"
2-Methylphenol	U		0.64	5.0	"	"	"	"	"
Bis(2-chloroisopropyl)ether	U		1.8	5.0	"	"	"	"	"
4-Methylphenol	U		0.80	5.0	"	"	"	"	"
N-Nitrosodi-n-propylamine	U		1.7	5.0	"	"	"	"	"
Hexachloroethane	U		2.7	5.0	"	"	"	"	"
Nitrobenzene	U		1.4	5.0	"	"	"	"	"
Isophorone	U		1.4	5.0	"	"	"	"	"
2-Nitrophenol	U		1.5	5.0	"	"	"	"	"
2,4-Dimethylphenol	U		1.4	5.0	"	"	"	"	"
Benzoic acid	U	J	1.8	25	"	"	"	"	"
Bis(2-chloroethoxy)methane	U		1.0	5.0	"	"	"	"	"
2,4-Dichlorophenol	U		1.2	5.0	"	"	"	"	"
1,2,4-Trichlorobenzene	U		1.8	5.0	"	"	"	"	"
Naphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloroaniline	U		1.6	5.0	"	"	"	"	"
Hexachlorobutadiene	U		2.5	5.0	"	"	"	"	"
2-Methylnaphthalene	U		1.1	5.0	"	"	"	"	"
4-Chloro-3-methylphenol	U		1.1	5.0	"	"	"	"	"
Hexachlorocyclopentadiene	U	J	2.8	25	"	"	"	"	"
2,4,6-Trichlorophenol	U		1.1	5.0	"	"	"	"	"
2,4,5-Trichlorophenol	U		1.6	5.0	"	"	"	"	"
2-Chloronaphthalene	U		1.4	5.0	"	"	"	"	"
2-Nitroaniline	U		2.3	5.0	"	"	"	"	"
Acenaphthylene	U		0.68	5.0	"	"	"	"	"
Dimethyl phthalate	U		1.2	5.0	"	"	"	"	"

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

2003SY01S05-WT115A
E2K0101-06(Water)
Sampled: Oct-31-02 15:00
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
2,6-Dinitrotoluene	U		1.6	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Acenaphthene	U		0.60	5.0	"	"	"	"	"
3-Nitroaniline	U		2.0	25	"	"	"	"	"
Dibenzofuran	U		1.6	5.0	"	"	"	"	"
-Dinitrophenol	U	R	1.8	25	"	"	"	"	"
2,4-Dinitrotoluene	U		2.0	5.0	"	"	"	"	"
Fluorene	U		1.1	5.0	"	"	"	"	"
4-Nitrophenol	U		1.6	25	"	"	"	"	"
4-Chlorophenyl phenyl ether	U		1.4	5.0	"	"	"	"	"
Diethyl phthalate	U	J	1.7	5.0	"	"	"	"	"
4,6-Dinitro-2-methylphenol	U	J	1.5	25	"	"	"	"	"
N-Nitrosodiphenylamine	U		1.4	5.0	"	"	"	"	"
4-Nitroaniline	U		1.7	25	"	"	"	"	"
4-Bromophenyl phenyl ether	U		0.88	5.0	"	"	"	"	"
Hexachlorobenzene	U		1.4	5.0	"	"	"	"	"
Pentachlorophenol	U	J	1.6	25	"	"	"	"	"
Phenanthrene	U		0.56	5.0	"	"	"	"	"
Anthracene	U		0.80	5.0	"	"	"	"	"
Carbazole	U		1.6	5.0	"	"	"	"	"
n-butyl phthalate	U		1.9	5.0	"	"	"	"	"
Fluoranthene	U		3.6	5.0	"	"	"	"	"
Pyrene	U		3.0	5.0	"	"	"	"	"
Butyl benzyl phthalate	U		2.2	5.0	"	"	"	"	"
3,3'-Dichlorobenzidine	U	J	1.1	25	"	"	"	"	"
Chrysene	U		0.65	5.0	"	"	"	"	"
Benzo (a) anthracene	U		0.92	5.0	"	"	"	"	"
Bis(2-ethylhexyl)phthalate	6.0	UJ	2.3	5.0	"	"	"	"	"
Di-n-octyl phthalate	U		2.7	5.0	"	"	"	"	"
Benzo (b) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (k) fluoranthene	U		1.1	5.0	"	"	"	"	"
Benzo (a) pyrene	U		0.73	5.0	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	U		0.30	5.0	"	"	"	"	"

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

2003SY01S05-WT115A
E2K0101-06(Water)
Sampled: Oct-31-02 15:00
Received: Nov-01-02 11:27

Semivolatiles by GC/MS

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Dibenz (a,h) anthracene	U		0.63	5.0	ug/L	1	EK21101	Nov-04-02	Nov-20-02
Benzo (g,h,i) perylene	U		0.93	5.0	"	"	"	"	"
Surrogate: 2-Fluorophenol	27.8			*55.6 %*	*18-128*		"	"	"
Surrogate: Phenol-d6	35.6			*71.2 %*	*12-133*		"	"	"
Surrogate: Nitrobenzene-d5	26.7			*53.4 %*	*5-158*		"	"	"
Surrogate: 2-Fluorobiphenyl	30.3			*60.6 %*	*29-128*		"	"	"
Surrogate: 2,4,6-Tribromophenol	47.2			*94.4 %*	*32-148*		"	"	"
Surrogate: Terphenyl-dl4	43.3			*86.6 %*	*62-140*		"	"	"

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project:Himco Dump Project Number:2003SY01 Project Manager:Howard Pham	**Reported:** Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Blank (EK21101-BLK1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	U		0.74	5.0	ug/L						
Bis(2-chloroethyl)ether	U		0.68	5.0	"						
2-Chlorophenol	U		0.79	5.0	"						
1,3-Dichlorobenzene	U		2.1	5.0	"						
-Dichlorobenzene	U		2.2	5.0	"						
Benzyl alcohol	U		1.0	5.0	"						
1,2-Dichlorobenzene	U		1.9	5.0	"						
2-Methylphenol	U		0.64	5.0	"						
Bis(2-chloroisopropyl)ether	U		1.8	5.0	"						
4-Methylphenol	U		0.80	5.0	"						
N-Nitrosodi-n-propylamine	U		1.7	5.0	"						
Hexachloroethane	U		2.7	5.0	"						
Nitrobenzene	U		1.4	5.0	"						
Isophorone	U		1.4	5.0	"						
2-Nitrophenol	U		1.5	5.0	"						
2,4-Dimethylphenol	U		1.4	5.0	"						
Benzoic acid	U	J	1.8	25	"						
Bis(2-chloroethoxy)methane	U		1.0	5.0	"						
2,4-Dichlorophenol	U		1.2	5.0	"						
,4-Trichlorobenzene	U		1.8	5.0	"						
Naphthalene	U		1.1	5.0	"						
4-Chloroaniline	U		1.6	5.0	"						
Hexachlorobutadiene	U		2.5	5.0	"						
2-Methylnaphthalene	U		1.1	5.0	"						
4-Chloro-3-methylphenol	U		1.1	5.0	"						
Hexachlorocyclopentadiene	U	J	2.8	25	"						
2,4,6-Trichlorophenol	U		1.1	5.0	"						
2,4,5-Trichlorophenol	U		1.6	5.0	"						
2-Chloronaphthalene	U		1.4	5.0	"						
2-Nitroaniline	U		2.3	5.0	"						
Acenaphthylene	U		0.68	5.0	"						
Dimethyl phthalate	U		1.2	5.0	"						

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Blank (EK21101-BLK1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
2,6-Dinitrotoluene	U		1.6	5.0	ug/L						
Acenaphthene	U		0.60	5.0	"						
3-Nitroaniline	U		2.0	25	"						
Dibenzofuran	U		1.6	5.0	"						
2,4-Dinitrophenol	U	R	1.8	25	"						
2,4-Dinitrotoluene	U		2.0	5.0	"						
Fluorene	U		1.1	5.0	"						
4-Nitrophenol	U		1.6	25	"						
4-Chlorophenyl phenyl ether	U		1.4	5.0	"						
Diethyl phthalate	U		1.7	5.0	"						
4,6-Dinitro-2-methylphenol	U	J	1.5	25	"						
N-Nitrosodiphenylamine	U		1.4	5.0	"						
4-Nitroaniline	U		1.7	25	"						
4-Bromophenyl phenyl ether	U		0.88	5.0	"						
Hexachlorobenzene	U		1.4	5.0	"						
Pentachlorophenol	U	J	1.6	25	"						
Phenanthrene	U		0.56	5.0	"						
Anthracene	U		0.80	5.0	"						
Carbazole	U		1.6	5.0	"						
Di-n-butyl phthalate	U		1.9	5.0	"						
Fluoranthene	U		3.6	5.0	"						
Pyrene	U		3.0	5.0	"						
Butyl benzyl phthalate	U		2.2	5.0	"						
3,3'-Dichlorobenzidine	U		1.1	25	"						
Chrysene	U		0.65	5.0	"						
Benzo (a) anthracene	U		0.92	5.0	"						
Bis(2-ethylhexyl)phthalate	5.69	J	2.3	5.0	"						
Di-n-octyl phthalate	U		2.7	5.0	"						
Benzo (b) fluoranthene	U		1.1	5.0	"						
Benzo (k) fluoranthene	U		1.1	5.0	"						
Benzo (a) pyrene	U		0.73	5.0	"						
Indeno (1,2,3-cd) pyrene	U		0.30	5.0	"						

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Blank (EK21101-BLK1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Dibenz (a,h) anthracene	U		0.63	5.0	ug/L						
Benzo (g,h,i) perylene	U		0.93	5.0	"						
Surrogate: 2-Fluorophenol	*21.5*				"	*50.0*		*43.0*	*18-128*		
Surrogate: Phenol-d6	*29.8*				"	*50.0*		*59.6*	*12-133*		
Surrogate: Nitrobenzene-d5	*30.6*				"	*50.0*		*61.2*	*5-158*		
Surrogate: 2-Fluorobiphenyl	*28.0*				"	*50.0*		*56.0*	*29-128*		
Surrogate: 2,4,6-Tribromophenol	*37.1*				"	*50.0*		*74.2*	*32-148*		
Surrogate: Terphenyl-dl4	*40.8*				"	*50.0*		*81.6*	*62-140*		

LCS (EK21101-BS1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	**34.5**		0.74	5.0	ug/L	50.0		69.0	7-128		
Bis(2-chloroethyl)ether	**31.0**		0.68	5.0	"	50.0		62.0	33-114		
2-Chlorophenol	**35.2**		0.79	5.0	"	50.0		70.4	31-121		
1,3-Dichlorobenzene	**22.7**		2.1	5.0	"	50.0		45.4	21-101		
1,4-Dichlorobenzene	**24.6**		2.2	5.0	"	50.0		49.2	22-102		
Benzyl alcohol	**37.4**		1.0	5.0	"	50.0		74.8	34-132		
-Dichlorobenzene	**26.6**		1.9	5.0	"	50.0		53.2	27-102		
2-Methylphenol	**33.6**		0.64	5.0	"	50.0		67.2	36-115		
Bis(2-chloroisopropyl)ether	**34.3**		1.8	5.0	"	50.0		68.6	34-120		
4-Methylphenol	**33.7**		0.80	5.0	"	50.0		67.4	35-117		
N-Nitrosodi-n-propylamine	**35.2**		1.7	5.0	"	50.0		70.4	49-111		
Hexachloroethane	**14.1**		2.7	5.0	"	50.0		28.2	16-103		
Nitrobenzene	**33.8**		1.4	5.0	"	50.0		67.6	41-115		
Isophorone	**36.1**		1.4	5.0	"	50.0		72.2	51-115		
2-Nitrophenol	**34.4**		1.5	5.0	"	50.0		68.8	41-128		
2,4-Dimethylphenol	**26.8**		1.4	5.0	"	50.0		53.6	13-123		
Benzoic acid	U	J	1.8	25	"	50.0			5-176		
Bis(2-chloroethoxy)methane	**34.1**		1.0	5.0	"	50.0		68.2	48-118		
2,4-Dichlorophenol	**36.8**		1.2	5.0	"	50.0		73.6	40-137		

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

LCS (EK21101-BS1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	**26.9**		1.8	5.0	ug/L	50.0		53.8	36-108		
Naphthalene	**32.5**		1.1	5.0	"	50.0		65.0	36-111		
4-Chloroaniline	**38.0**		1.6	5.0	"	50.0		76.0	50-133		
Hexachlorobutadiene	**19.5**		2.5	5.0	"	50.0		39.0	26-108		
2-Methylnaphthalene	**31.2**		1.1	5.0	"	50.0		62.4	47-111		
4-Chloro-3-methylphenol	**38.6**		1.1	5.0	"	50.0		77.2	52-131		
Hexachlorocyclopentadiene	**4.25**	J	2.8	25	"	50.0		8.50	5-179		
2,4,6-Trichlorophenol	**41.1**		1.1	5.0	"	50.0		82.2	38-139		
2,4,5-Trichlorophenol	**39.7**		1.6	5.0	"	50.0		79.4	34-143		
2-Chloronaphthalene	**34.5**		1.4	5.0	"	50.0		69.0	50-114		
2-Nitroaniline	**44.2**		2.3	5.0	"	50.0		88.4	55-131		
Acenaphthylene	**36.4**		0.68	5.0	"	50.0		72.8	44-121		
Dimethyl phthalate	**3.57**		1.2	5.0	"	50.0		7.14	4-102		
2,6-Dinitrotoluene	**38.1**		1.6	5.0	"	50.0		76.2	58-128		
Acenaphthene	**36.2**		0.60	5.0	"	50.0		72.4	52-114		
3-Nitroaniline	**42.9**		2.0	25	"	50.0		85.8	49-137		
Dibenzofuran	**35.2**		1.6	5.0	"	50.0		70.4	52-119		
2,4-Dinitrophenol	U	J	1.8	25	"	50.0			16-189		
2,4-Dinitrotoluene	**40.1**		2.0	5.0	"	50.0		80.2	57-132		
Fluorene	**38.9**		1.1	5.0	"	50.0		77.8	53-120		
4-Nitrophenol	**70.6**		1.6	25	"	50.0		141	5-235		
4-Chlorophenyl phenyl ether	**37.8**		1.4	5.0	"	50.0		75.6	54-124		
Diethyl phthalate	**10.3**		1.7	5.0	"	50.0		20.6	34-129		
4,6-Dinitro-2-methylphenol	**17.6**	J	1.5	25	"	50.0		35.2	11-235		
N-Nitrosodiphenylamine	**34.3**		1.4	5.0	"	50.0		68.6	42-154		
4-Nitroaniline	**52.0**		1.7	25	"	50.0		104	4-158		
4-Bromophenyl phenyl ether	**36.3**		0.88	5.0	"	50.0		72.6	49-148		
Hexachlorobenzene	**38.2**		1.4	5.0	"	50.0		76.4	52-143		
Pentachlorophenol	U	J	1.6	25	"	50.0			11-247		
Phenanthrene	**38.1**		0.56	5.0	"	50.0		76.2	44-144		
Anthracene	**38.4**		0.80	5.0	"	50.0		76.8	44-144		
Carbazole	**43.0**		1.6	5.0	"	50.0		86.0	49-139		

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: Himco Dump Project Number: 2003SY01 Project Manager: Howard Pham	**Reported:** Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

LCS (EK21101-BS1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Di-n-butyl phthalate	**37.0**		1.9	5.0	ug/L	50.0		74.0	31-159		
Fluoranthene	**42.5**		3.6	5.0	"	50.0		85.0	49-138		
Pyrene	**44.4**		3.0	5.0	"	50.0		88.8	40-158		
Butyl benzyl phthalate	**47.7**		2.2	5.0	"	50.0		95.4	48-159		
3,3'-Dichlorobenzidine	**51.6**		1.1	25	"	50.0		103	41-183		
Chrysene	**38.6**		0.65	5.0	"	50.0		77.2	50-152		
Benzo (a) anthracene	**42.7**		0.92	5.0	"	50.0		85.4	54-153		
Bis(2-ethylhexyl)phthalate	**45.4**	J	2.3	5.0	"	50.0		90.8	47-153		
Di-n-octyl phthalate	**44.3**		2.7	5.0	"	50.0		88.6	30-156		
Benzo (b) fluoranthene	**41.6**		1.1	5.0	"	50.0		83.2	55-153		
Benzo (k) fluoranthene	**40.4**		1.1	5.0	"	50.0		80.8	43-149		
Benzo (a) pyrene	**43.2**		0.73	5.0	"	50.0		86.4	47-156		
Indeno (1,2,3-cd) pyrene	**36.9**		0.30	5.0	"	50.0		73.8	43-153		
Dibenz (a,h) anthracene	**36.4**		0.63	5.0	"	50.0		72.8	48-146		
Benzo (g,h,i) perylene	**33.8**		0.93	5.0	"	50.0		67.6	37-155		
Surrogate: 2-Fluorophenol	*35.4*				"	*50.0*		*70.8*	*18-128*		
Surrogate: Phenol-d6	*36.1*				"	*50.0*		*72.2*	*12-133*		
Surrogate: Nitrobenzene-d5	*37.1*				"	*50.0*		*74.2*	*5-158*		
Surrogate: 2-Fluorobiphenyl	*35.9*				"	*50.0*		*71.8*	*29-128*		
Surrogate: 2,4,6-Tribromophenol	*48.6*				"	*50.0*		*97.2*	*32-148*		
Surrogate: Terphenyl-d14	*48.6*				"	*50.0*		*97.2*	*62-140*		

LCS Dup (EK21101-BSD1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	**33.8**		0.74	5.0	ug/L	50.0		67.6	7-128	2.05	84
Bis(2-chloroethyl)ether	**31.2**		0.68	5.0	"	50.0		62.4	33-114	0.643	63
2-Chlorophenol	**34.9**		0.79	5.0	"	50.0		69.8	31-121	0.856	62
1,3-Dichlorobenzene	**24.4**		2.1	5.0	"	50.0		48.8	21-101	7.22	75
1,4-Dichlorobenzene	**25.7**		2.2	5.0	"	50.0		51.4	22-102	4.37	79
Benzyl alcohol	**36.0**		1.0	5.0	"	50.0		72.0	34-132	3.81	40

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

LCS Dup (EK21101-BSD1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,2-Dichlorobenzene	**27.6**		1.9	5.0	ug/L	50.0		55.2	27-102	3.69	73
2-Methylphenol	**32.9**		0.64	5.0	"	50.0		65.8	36-115	2.11	53
Bis(2-chloroisopropyl)ether	**33.1**		1.8	5.0	"	50.0		66.2	34-120	3.56	63
4-Methylphenol	**32.4**		0.80	5.0	"	50.0		64.8	35-117	3.93	51
N-Nitrosodi-n-propylamine	**33.8**		1.7	5.0	"	50.0		67.6	49-111	4.06	37
Hexachloroethane	**16.4**		2.7	5.0	"	50.0		32.8	16-103	15.1	77
Nitrobenzene	**33.0**		1.4	5.0	"	50.0		66.0	41-115	2.40	55
Isophorone	**34.5**		1.4	5.0	"	50.0		69.0	51-115	4.53	30
2-Nitrophenol	**34.2**		1.5	5.0	"	50.0		68.4	41-128	0.583	50
2,4-Dimethylphenol	**27.8**		1.4	5.0	"	50.0		55.6	13-123	3.66	73
Benzoic acid	U	J	1.8	25	"	50.0			5-176		155
Bis(2-chloroethoxy)methane	**33.0**		1.0	5.0	"	50.0		66.0	48-118	3.28	38
2,4-Dichlorophenol	**36.2**		1.2	5.0	"	50.0		72.4	40-137	1.64	53
1,2,4-Trichlorobenzene	**26.8**		1.8	5.0	"	50.0		53.6	36-108	0.372	58
Naphthalene	**31.8**		1.1	5.0	"	50.0		63.6	36-111	2.18	48
4-Chloroaniline	**36.4**		1.6	5.0	"	50.0		72.8	50-133	4.30	72
Hexachlorobutadiene	**19.1**		2.5	5.0	"	50.0		38.2	26-108	2.07	65
2-Methylnaphthalene	**30.0**		1.1	5.0	"	50.0		60.0	47-111	3.92	37
4-Chloro-3-methylphenol	**37.0**		1.1	5.0	"	50.0		74.0	52-131	4.23	37
Hexachlorocyclopentadiene	**5.11**	J	2.8	25	"	50.0		10.2	5-179	18.4	103
2,4,6-Trichlorophenol	**39.9**		1.1	5.0	"	50.0		79.8	38-139	2.96	48
2,4,5-Trichlorophenol	**38.8**		1.6	5.0	"	50.0		77.6	34-143	2.29	46
2-Chloronaphthalene	**33.0**		1.4	5.0	"	50.0		66.0	50-114	4.44	35
2-Nitroaniline	**41.8**		2.3	5.0	"	50.0		83.6	55-131	5.58	28
Acenaphthylene	**34.5**		0.68	5.0	"	50.0		69.0	44-121	5.36	29
Dimethyl phthalate	**10.8**		1.2	5.0	"	50.0		21.6	4-102	101	60
2,6-Dinitrotoluene	**36.0**		1.6	5.0	"	50.0		72.0	58-128	5.67	27
Acenaphthene	**34.1**		0.60	5.0	"	50.0		68.2	52-114	5.97	31
3-Nitroaniline	**41.2**		2.0	25	"	50.0		82.4	49-137	4.04	28
Dibenzofuran	**33.7**		1.6	5.0	"	50.0		67.4	52-119	4.35	27
2,4-Dinitrophenol	U	J	1.8	25	"	50.0			16-189		109
2,4-Dinitrotoluene	**37.2**		2.0	5.0	"	50.0		74.4	57-132	7.50	29

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

LCS Dup (EK21101-BSD1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Fluorene	**36.4**		1.1	5.0	ug/L	50.0		72.8	53-120	6.64	27
4-Nitrophenol	**68.2**		1.6	25	"	50.0		136	5-235	3.46	64
4-Chlorophenyl phenyl ether	**35.2**		1.4	5.0	"	50.0		70.4	54-124	7.12	30
Diethyl phthalate	**16.5**		1.7	5.0	"	50.0		33.0	34-129	46.3	37
-Dinitro-2-methylphenol	**17.2**	J	1.5	25	"	50.0		34.4	11-235	2.30	59
N-Nitrosodiphenylamine	**33.6**		1.4	5.0	"	50.0		67.2	42-154	2.06	54
4-Nitroaniline	**48.5**		1.7	25	"	50.0		97.0	4-158	6.97	44
4-Bromophenyl phenyl ether	**35.5**		0.88	5.0	"	50.0		71.0	49-148	2.23	30
Hexachlorobenzene	**36.3**		1.4	5.0	"	50.0		72.6	52-143	5.10	29
Pentachlorophenol	**4.96**	J	1.6	25	"	50.0		9.92	11-247		87
Phenanthrene	**36.0**		0.56	5.0	"	50.0		72.0	44-144	5.67	25
Anthracene	**36.3**		0.80	5.0	"	50.0		72.6	44-144	5.62	29
Carbazole	**40.5**		1.6	5.0	"	50.0		81.0	49-139	5.99	47
Di-n-butyl phthalate	**34.6**		1.9	5.0	"	50.0		69.2	31-159	6.70	40
Fluoranthene	**39.8**		3.6	5.0	"	50.0		79.6	49-138	6.56	30
Pyrene	**40.9**		3.0	5.0	"	50.0		81.8	40-158	8.21	28
Butyl benzyl phthalate	**43.0**		2.2	5.0	"	50.0		86.0	48-159	10.4	40
3,3'-Dichlorobenzidine	**50.0**		1.1	25	"	50.0		100	41-183	3.15	44
Chrysene	**35.4**		0.65	5.0	"	50.0		70.8	50-152	8.65	36
nzo (a) anthracene	**39.8**		0.92	5.0	"	50.0		79.6	54-153	7.03	36
is(2-ethylhexyl)phthalate	**41.3**	J	2.3	5.0	"	50.0		82.6	47-153	9.46	22
Di-n-octyl phthalate	**38.4**		2.7	5.0	"	50.0		76.8	30-156	14.3	87
Benzo (b) fluoranthene	**85.8**		1.1	5.0	"	50.0		172	55-153	69.4	83
Benzo (k) fluoranthene	**73.9**		1.1	5.0	"	50.0		148	43-149	58.6	83
Benzo (a) pyrene	**39.8**		0.73	5.0	"	50.0		79.6	47-156	8.19	72
Indeno (1,2,3-cd) pyrene	**33.1**		0.30	5.0	"	50.0		66.2	43-153	10.9	66
Dibenz (a,h) anthracene	**33.2**		0.63	5.0	"	50.0		66.4	48-146	9.20	74
Benzo (g,h,i) perylene	**29.7**		0.93	5.0	"	50.0		59.4	37-155	12.9	58
Surrogate: 2-Fluorophenol	*35.0*				"	*50.0*		*70.0*	*18-128*		
Surrogate: Phenol-d6	*34.7*				"	*50.0*		*69.4*	*12-133*		
Surrogate: Nitrobenzene-d5	*34.9*				"	*50.0*		*69.8*	*5-158*		
Surrogate: 2-Fluorobiphenyl	*33.0*				"	*50.0*		*66.0*	*29-128*		

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

LCS Dup (EK21101-BSD1) **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 2,4,6-Tribromophenol	*47.0*				*ug/L*	*50.0*		*94.0*	*32-148*		
Surrogate: Terphenyl-dl4	*43.6*				"	*50.0*		*87.2*	*62-140*		

Matrix Spike (EK21101-MS1) **Source: E2K0101-06** **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	**31.6**		0.74	5.0	ug/L	50.0	U	63.2	5-131		
Bis(2-chloroethyl)ether	**19.3**		0.68	5.0	"	50.0	U	38.6	5-156		
2-Chlorophenol	**31.1**		0.79	5.0	"	50.0	U	62.2	5-138		
1,3-Dichlorobenzene	**23.1**		2.1	5.0	"	50.0	U	46.2	39-96		
1,4-Dichlorobenzene	**23.9**		2.2	5.0	"	50.0	U	47.8	36-98		
Benzyl alcohol	**34.2**		1.0	5.0	"	50.0	U	68.4	5-188		
1,2-Dichlorobenzene	**25.2**		1.9	5.0	"	50.0	U	50.4	40-99		
2-Methylphenol	**31.5**		0.64	5.0	"	50.0	U	63.0	21-117		
Bis(2-chloroisopropyl)ether	**28.5**		1.8	5.0	"	50.0	U	57.0	5-168		
4-Methylphenol	**31.7**		0.80	5.0	"	50.0	U	63.4	26-114		
N-Nitrosodi-n-propylamine	**30.9**		1.7	5.0	"	50.0	U	61.8	5-182		
Hexachloroethane	**22.6**		2.7	5.0	"	50.0	U	45.2	5-132		
Nitrobenzene	**29.5**		1.4	5.0	"	50.0	U	59.0	5-163		
Isophorone	**32.4**		1.4	5.0	"	50.0	U	64.8	5-171		
2-Nitrophenol	**31.7**		1.5	5.0	"	50.0	U	63.4	5-157		
2,4-Dimethylphenol	**26.0**		1.4	5.0	"	50.0	U	52.0	5-116		
Benzoic acid	U	J	1.8	25	"	50.0	U		5-150		
Bis(2-chloroethoxy)methane	**30.8**		1.0	5.0	"	50.0	U	61.6	5-174		
2,4-Dichlorophenol	**34.4**		1.2	5.0	"	50.0	U	68.8	24-127		
1,2,4-Trichlorobenzene	**29.2**		1.8	5.0	"	50.0	U	58.4	41-106		
Naphthalene	**29.9**		1.1	5.0	"	50.0	U	59.8	5-168		
4-Chloroaniline	**28.9**		1.6	5.0	"	50.0	U	57.8	5-183		
Hexachlorobutadiene	**28.9**		2.5	5.0	"	50.0	U	57.8	38-99		
2-Methylnaphthalene	**30.7**		1.1	5.0	"	50.0	U	61.4	48-109		
4-Chloro-3-methylphenol	**38.4**		1.1	5.0	"	50.0	U	76.8	27-140		

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Matrix Spike (EK21101-MS1) **Source: E2K0101-06** **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Hexachlorocyclopentadiene	7.76	J	2.8	25	ug/L	50.0	U	15.5	5-95		
2,4,6-Trichlorophenol	41.0		1.1	5.0	"	50.0	U	82.0	26-132		
2,4,5-Trichlorophenol	39.5		1.6	5.0	"	50.0	U	79.0	47-123		
2-Chloronaphthalene	34.2		1.4	5.0	"	50.0	U	68.4	56-106		
litroaniline	41.5		2.3	5.0	"	50.0	U	83.0	5-176		
Acenaphthylene	34.8		0.68	5.0	"	50.0	U	69.6	5-174		
Dimethyl phthalate	35.7		1.2	5.0	"	50.0	U	71.4	39-102		
2,6-Dinitrotoluene	38.4		1.6	5.0	"	50.0	U	76.8	67-110		
Acenaphthene	35.2		0.60	5.0	"	50.0	U	70.4	18-129		
3-Nitroaniline	37.6		2.0	25	"	50.0	U	75.2	5-203		
Dibenzofuran	33.9		1.6	5.0	"	50.0	U	67.8	5-112		
2,4-Dinitrophenol	U	J	1.8	25	"	50.0	U		5-191		
2,4-Dinitrotoluene	40.2		2.0	5.0	"	50.0	U	80.4	28-146		
Fluorene	37.4		1.1	5.0	"	50.0	U	74.8	55-113		
4-Nitrophenol	82.6		1.6	25	"	50.0	U	165	34-128		
4-Chlorophenyl phenyl ether	36.9		1.4	5.0	"	50.0	U	73.8	59-113		
Diethyl phthalate	37.3		1.7	5.0	"	50.0	U	74.6	55-100		
4,6-Dinitro-2-methylphenol	30.5	J	1.5	25	"	50.0	U	61.0	72-138		
N-Nitrosodiphenylamine	35.8		1.4	5.0	"	50.0	U	71.6	74-102		
Nitroaniline	44.3		1.7	25	"	50.0	U	88.6	5-177		
Bromophenyl phenyl ether	36.4		0.88	5.0	"	50.0	U	72.8	71-107		
Hexachlorobenzene	37.9		1.4	5.0	"	50.0	U	75.8	76-100		
Pentachlorophenol	94.4	J	1.6	25	"	50.0	U	189	5-394		
Phenanthrene	37.8		0.56	5.0	"	50.0	U	75.6	65-112		
Anthracene	37.8		0.80	5.0	"	50.0	U	75.6	61-114		
Carbazole	42.2		1.6	5.0	"	50.0	U	84.4	50-146		
Di-n-butyl phthalate	37.5		1.9	5.0	"	50.0	U	75.0	51-126		
Fluoranthene	41.2		3.6	5.0	"	50.0	U	82.4	41-152		
Pyrene	42.1		3.0	5.0	"	50.0	U	84.2	57-119		
Butyl benzyl phthalate	45.8		2.2	5.0	"	50.0	U	91.6	20-152		
3,3'-Dichlorobenzidine	13.3		1.1	25	"	50.0	U	26.6	5-113		
Chrysene	37.0		0.65	5.0	"	50.0	U	74.0	62-118		

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Superfund, US EPA Region 5	Project:Himco Dump	
77 West Jackson Boulevard	Project Number:2003SY01	**Reported:**
Chicago IL, 60604	Project Manager:Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Matrix Spike (EK21101-MS1) **Source: E2K0101-06** **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Benzo (a) anthracene	**42.0**		0.92	5.0	ug/L	50.0	U	84.0	63-120		
Bis(2-ethylhexyl)phthalate	**65.5**	J	2.3	5.0	"	50.0	6.0	119	39-138		
Di-n-octyl phthalate	**38.6**		2.7	5.0	"	50.0	U	77.2	28-158		
Benzo (b) fluoranthene	**45.1**		1.1	5.0	"	50.0	U	90.2	49-155		
Benzo (k) fluoranthene	**39.8**		1.1	5.0	"	50.0	U	79.6	43-149		
Benzo (a) pyrene	**41.5**		0.73	5.0	"	50.0	U	83.0	31-160		
Indeno (1,2,3-cd) pyrene	**38.9**		0.30	5.0	"	50.0	U	77.8	52-171		
Dibenz (a,h) anthracene	**38.9**		0.63	5.0	"	50.0	U	77.8	12-226		
Benzo (g,h,i) perylene	**37.0**		0.93	5.0	"	50.0	U	74.0	25-204		
Surrogate: 2-Fluorophenol	*30.4*				"	*50.0*		*60.8*	*18-128*		
Surrogate: Phenol-d6	*34.1*				"	*50.0*		*68.2*	*12-133*		
Surrogate: Nitrobenzene-d5	*32.1*				"	*50.0*		*64.2*	*5-158*		
Surrogate: 2-Fluorobiphenyl	*34.5*				"	*50.0*		*69.0*	*29-128*		
Surrogate: 2,4,6-Tribromophenol	*49.1*				"	*50.0*		*98.2*	*32-148*		
Surrogate: Terphenyl-dl4	*44.5*				"	*50.0*		*89.0*	*62-140*		

Matrix Spike Dup (EK21101-MSD1) **Source: E2K0101-06** **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	**27.2**		0.74	5.0	ug/L	50.0	U	54.4	5-131	15.0	42
Bis(2-chloroethyl)ether	**4.94**		0.68	5.0	"	50.0	U	9.88	5-156	118	45
2-Chlorophenol	**21.9**		0.79	5.0	"	50.0	U	43.8	5-138	34.7	86
1,3-Dichlorobenzene	**5.51**		2.1	5.0	"	50.0	U	11.0	39-96	123	82
1,4-Dichlorobenzene	**6.09**		2.2	5.0	"	50.0	U	12.2	36-98	119	75
Benzyl alcohol	**26.7**		1.0	5.0	"	50.0	U	53.4	5-188	24.6	28
1,2-Dichlorobenzene	**7.77**		1.9	5.0	"	50.0	U	15.5	40-99	106	66
2-Methylphenol	**26.4**		0.64	5.0	"	50.0	U	52.8	21-117	17.6	62
Bis(2-chloroisopropyl)ether	**11.6**		1.8	5.0	"	50.0	U	23.2	5-168	84.3	39
4-Methylphenol	**27.9**		0.80	5.0	"	50.0	U	55.8	26-114	12.8	44
N-Nitrosodi-n-propylamine	**16.5**		1.7	5.0	"	50.0	U	33.0	5-182	60.8	48
Hexachloroethane	**7.83**		2.7	5.0	"	50.0	U	15.7	5-132	97.1	200

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Matrix Spike Dup (EK21101-MSD1) **Source: E2K0101-06** **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Nitrobenzene	15.6		1.4	5.0	ug/L	50.0	U	31.2	5-163	61.6	110
Isophorone	20.7		1.4	5.0	"	50.0	U	41.4	5-171	44.1	36
2-Nitrophenol	19.1		1.5	5.0	"	50.0	U	38.2	5-157	49.6	75
2,4-Dimethylphenol	13.6		1.4	5.0	"	50.0	U	27.2	5-116	62.6	69
ızoic acid	U	J	1.8	25	"	50.0	U		5-150		42
Bis(2-chloroethoxy)methane	21.8		1.0	5.0	"	50.0	U	43.6	5-174	34.2	296
2,4-Dichlorophenol	34.9		1.2	5.0	"	50.0	U	69.8	24-127	1.44	23
1,2,4-Trichlorobenzene	16.3		1.8	5.0	"	50.0	U	32.6	41-106	56.7	115
Naphthalene	18.8		1.1	5.0	"	50.0	U	37.6	5-168	45.6	37
4-Chloroaniline	12.7		1.6	5.0	"	50.0	U	25.4	5-183	77.9	30
Hexachlorobutadiene	15.1		2.5	5.0	"	50.0	U	30.2	38-99	62.7	145
2-Methylnaphthalene	24.6		1.1	5.0	"	50.0	U	49.2	48-109	22.1	34
4-Chloro-3-methylphenol	39.1		1.1	5.0	"	50.0	U	78.2	27-140	1.81	28
Hexachlorocyclopentadiene	5.40	J	2.8	25	"	50.0	U	10.8	5-95	35.9	168
2,4,6-Trichlorophenol	40.8		1.1	5.0	"	50.0	U	81.6	26-132	0.489	25
2,4,5-Trichlorophenol	41.8		1.6	5.0	"	50.0	U	83.6	47-123	5.66	24
2-Chloronaphthalene	32.2		1.4	5.0	"	50.0	U	64.4	56-106	6.02	26
2-Nitroaniline	43.6		2.3	5.0	"	50.0	U	87.2	5-176	4.94	37
Acenaphthylene	33.9		0.68	5.0	"	50.0	U	67.8	5-174	2.62	23
'methyl phthalate	37.4		1.2	5.0	"	50.0	U	74.8	39-102	4.65	44
,6-Dinitrotoluene	39.4		1.6	5.0	"	50.0	U	78.8	67-110	2.57	20
Acenaphthene	35.1		0.60	5.0	"	50.0	U	70.2	18-129	0.285	54
3-Nitroaniline	35.6		2.0	25	"	50.0	U	71.2	5-203	5.46	28
Dibenzofuran	35.9		1.6	5.0	"	50.0	U	71.8	5-112	5.73	16
2,4-Dinitrophenol	19.2	J	1.8	25	"	50.0	U	38.4	5-191		96
2,4-Dinitrotoluene	41.3		2.0	5.0	"	50.0	U	82.6	28-146	2.70	19
Fluorene	39.4		1.1	5.0	"	50.0	U	78.8	55-113	5.21	21
4-Nitrophenol	113		1.6	25	"	50.0	U	226	34-128	31.1	200
4-Chlorophenyl phenyl ether	38.6		1.4	5.0	"	50.0	U	77.2	59-113	4.50	17
Diethyl phthalate	39.4		1.7	5.0	"	50.0	U	78.8	55-100	5.48	22
4,6-Dinitro-2-methylphenol	24.3	J	1.5	25	"	50.0	U	48.6	72-138	22.6	68
N-Nitrosodiphenylamine	36.4		1.4	5.0	"	50.0	U	72.8	74-102	1.66	31

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Semivolatiles by GC/MS - Quality Control

Batch EK21101 - BP SVOA

Matrix Spike Dup (EK21101-MSD1) **Source: E2K0101-06** **Prepared: Nov-04-02 Analyzed: Nov-20-02**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
4-Nitroaniline	**47.3**		1.7	25	ug/L	50.0	U	94.6	5-177	6.55	73
4-Bromophenyl phenyl ether	**37.9**		0.88	5.0	"	50.0	U	75.8	71-107	4.04	12
Hexachlorobenzene	**39.1**		1.4	5.0	"	50.0	U	78.2	76-100	3.12	17
Pentachlorophenol	**80.6**	J	1.6	25	"	50.0	U	161	5-394	15.8	57
Phenanthrene	**39.6**		0.56	5.0	"	50.0	U	79.2	65-112	4.65	16
Anthracene	**33.0**		0.80	5.0	"	50.0	U	66.0	61-114	13.6	33
Carbazole	**45.6**		1.6	5.0	"	50.0	U	91.2	50-146	7.74	30
Di-n-butyl phthalate	**39.6**		1.9	5.0	"	50.0	U	79.2	51-126	5.45	40
Fluoranthene	**44.2**		3.6	5.0	"	50.0	U	88.4	41-152	7.03	22
Pyrene	**44.5**		3.0	5.0	"	50.0	U	89.0	57-119	5.54	55
Butyl benzyl phthalate	**49.5**		2.2	5.0	"	50.0	U	99.0	20-152	7.76	70
3,3'-Dichlorobenzidine	**8.81**		1.1	25	"	50.0	U	17.6	5-113	40.6	27
Chrysene	**38.8**		0.65	5.0	"	50.0	U	77.6	62-118	4.75	17
Benzo (a) anthracene	**42.7**		0.92	5.0	"	50.0	U	85.4	63-120	1.65	23
Bis(2-ethylhexyl)phthalate	**50.9**	J	2.3	5.0	"	50.0	6.0	89.8	39-138	25.1	33
Di-n-octyl phthalate	**48.4**		2.7	5.0	"	50.0	U	96.8	28-158	22.5	46
Benzo (b) fluoranthene	**105**		1.1	5.0	"	50.0	U	210	49-155	79.8	22
Benzo (k) fluoranthene	**89.4**		1.1	5.0	"	50.0	U	179	43-149	76.8	18
Benzo (a) pyrene	**36.4**		0.73	5.0	"	50.0	U	72.8	31-160	13.1	47
Indeno (1,2,3-cd) pyrene	**41.2**		0.30	5.0	"	50.0	U	82.4	52-171	5.74	37
Dibenz (a,h) anthracene	**40.8**		0.63	5.0	"	50.0	U	81.6	12-226	4.77	41
Benzo (g,h,i) perylene	**39.3**		0.93	5.0	"	50.0	U	78.6	25-204	6.03	37
Surrogate: 2-Fluorophenol	*17.5*				"	*50.0*		*35.0*	*18-128*		
Surrogate: Phenol-d6	*28.6*				"	*50.0*		*57.2*	*12-133*		
Surrogate: Nitrobenzene-d5	*16.9*				"	*50.0*		*33.8*	*5-158*		
Surrogate: 2-Fluorobiphenyl	*32.0*				"	*50.0*		*64.0*	*29-128*		
Surrogate: 2,4,6-Tribromophenol	*42.7*				"	*50.0*		*85.4*	*32-148*		
Surrogate: Terphenyl-dl4	*47.1*				"	*50.0*		*94.2*	*62-140*		

Xuyen Nguyen, Chemist

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Superfund, US EPA Region 5	Project: Himco Dump	
77 West Jackson Boulevard	Project Number: 2003SY01	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Dec-05-02 14:50

Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
R	The presence or absence of the analyte cannot be determined from the data due to severe quality control problems. The data are rejected and considered unuseable.
UJ	The analyte was not detected at or above the reported value. The reported value is an estimate.
U	Not Detected
NR	Not Reported

Xuyen Nguyen, Chemist

Sample E2K0101-06 was used as the MS1/MSD1 samples. The MS1 and MSD1 samples were each spiked with 500ul of the 100ug/ml ABN LCS standard solution.
In the MS1 sample all the percent recoveries were within limits except Pentachlorophenol (188%) and 3,3-Dichlorobenzidine(26%).
The analyte 2,4-Dinitrophenol was not detected in either MS1 or MSD1. This analyte was flagged "Q" for detected and "R" for non-detected compounds in the native sample.

In the MSD1 sample all the percent recoveries were within limits except: bis(2-Chloroethyl)ether (10%), 1,3-Dichlorobenzene(11%), 1,4-Dichlorobenzene(12%), 1,2-Dichlorobenzene(16%), bis(2-chloroisopropyl)ether(24%), 2-Nitrophenol(38%) N-Nitroso-di-n-propylamine(32%), Nitrobenzene(32%), Isophorone(42%), bis(2-Chloroethoxy)methane(44%), 1,2,4-Trichlorobenzene(32%) 4-Chloroaniline (26%), Pentachlorophenol(162%) and 3,3-Dichlorobenzidine (18%). All these compounds percent recoveries were within limits in the MS1 except the analytes Pentachlorophenol and 3,3-Dichlorobenzidine were outside limits in both MS1 and MSD1. These compounds were flagged "J" for detected and "UJ" for non-detected compounds in the native sample.

The relative percent differences(RPD) were within limits except bis(2-Chloroethyl)ether (117%), 1,3-Dichlorobenzene(123%), 1,4-Dichlorobenzene(120%), 1,2-Dichlorobenzene (103%), bis(2-chloroisopropyl)ether(83%), Hexachloroethane(97%), N-Nitroso-di-n-propylamine(64%), Nitrobenzene(58%), Isophorone(42%), 2,4-Nitrophenol (51%),4-Chloroaniline (76%) and bis(2-Ethylhexyl)phthalate(29%). No other problems were observed.

IV.SAMPLES RESULTS:

In the sample E2k0101-02 contained bis(2-Ethylhexyl)phthalate(5.0ug/L)
In the sample E2k0101-04 contained bis(2-Ethylhexyl)phthalate(7.0ug/L
In the sample E2k0101-05 contained bis(2-Ethylhexyl)phthalate(4.0ug/L)
In the sample E2k0101-06 contained bis(2-Ethylhexyl)phthalate(6.0ug/L)
The raw /processed data files, method files and sequence files are archived on R5CRL\VOL2\XNGUYEN\2002.
Tentatively Identified Compounds (TICs) have been listed for each sample. These compounds listed on the Enviroforms were selected based on the best Mass spectrum match of the unknown compound to compounds in the library. These compounds are suggested and not confirmed. LIMS reports will be generated as soon as possible.